FAO Fisheries Circular No. 123 FIRD/C123
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INVENTORY OF BIOLOGICAL STATISTICS FOR FISH STOCK ASSESSMENT

INVENTAIRE DE STATISTIQUES BIOLOGIQUES POUR L'EVALUATION DE STOCKS DE POISSON

INVENTARIO BIOESTADISTICO DE DATOS PARA LA EVALUACCION DE POBLACIONES DE PECES

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FAO Fishery Data Centre
Fisheries Resources Division

Centre de données des pêches de la FAO
Division des ressources des pêches

Centro de Datos Pesqueros de la FAO
Dirección de Recursos Pesqueros

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, November 1970

PREPARATION OF THIS DOCUMENT

As a first step towards obtaining an inventory of data relevant to fish stock assessment, a Questionnaire on Biological Statistics for Fish Stock Assessment was circulated to fisheries institutes around the world. This circular contains a preliminary summary of the replies received.

PREPARATION DE CE DOCUMENT

Comme premier pas vers l'établissement d'un inventaire de données concernant l'évaluation de stocks de poisson, un questionnaire sur les statistiques biologiques pour l'évaluation de stocks de poisson a été distribué aux instituts des pêches à travers le monde. Cette circulaire contient un résumé préliminaire des réponses reçues.

PREPARACION DE ESTE DOCUMENTO

Como un primer paso para confeccionar un inventario de datos referentes a la evaluación de poblaciones de peces, ha sido distribuido a los institutos de pesca a través del mundo un cuestionario de estadística biológica para la evaluación de poblaciones. Este folleto contiene una reseña preliminar de las respuestas recibidas.

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FAO Fisheries Circular *(FAO Fish. Circ.)*

A vehicle for distribution of short or ephemeral notes, lists, etc., including provisional versions of documents to be issued later in other series.

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Institute
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Flounders, halibuts, soles, etc.
Cods, hakes, haddocks, etc.
Redfishes, basses, congers, etc.
Jacks, mullets, etc.
Herrings, sardines, anchovies, etc.
Tunas, bonitos, skipjacks
Mackerels, billfishes, cutlassfishes, etc.
Crustaceans
Molluscs
Salmon
Unsorted or unidentified

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Country
Institute
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Exploratory fishing
Echo surveys
Egg-larvae surveys
Other methods

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Country
Institute
Fish species
Length dimension:

Total
Fork
Other

Unit rounded to:

Nearest
Unit below
Not reported

Grouping of unit

Explanation of symbols in Table 2

X = detailed data available

O = only data of a general nature available (i.e. landings statistics by port, effort statistics by number of boats or fisherman, etc.)

- = no data

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Pays
Institut
Quantités débarquées des principaux groupes de poissons étudiés par les instituts participant à l'enquête:

- Flêts, flétans, soles, etc.
- Morues, merlus, églefins, etc.
- Rascasses, perches de mer, congres, etc.
- Chinchards, mulets, etc.
- Harengs, sardines, anchois, etc.
- Thons, pelamides, bonites à ventre rayé
- Maquereaux, marlins, trichiures, etc.
- Crustacés
- Mollusques
- Saumons
- Poissons non triés et non identifiés

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Pays
Institut
Statistiques sur les quantités débarquées par zone de pêche
Statistiques sur l'effort de pêche
Données sur les quantités rejetées
Données sur l'abondance de ressources déterminées (ou fondées sur l'utilisation d'engins donnés); source:

- Pêche d'exploration
- Campagnes de prospection par écho-sondeurs
- Campagnes de prospection des oeufs et des larves
- Autres méthodes

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TABLEAU 4 - METHODES UTILISEES POUR ENREGISTRER ET GROUPER LES MESURES DES LONGUEURS DE POISSONS

Pays
Institut
Espèce
Longueur:

- Totale
- A la fourche
- Autre

Arrondi à:

Au plus près
Par défaut
Non indiqué

Groupement d'unités

Explication des signes conventionnels employés au Tableau 2

X = données détaillées disponibles

O = données disponibles exclusivement de nature générale (p.ex., quantités débarquées

- = pas de données

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País
Institución
Desembarques de los grupos principales de peces estudiados por las instituciones informantes:

Lenguados, hipoglosos, etc.
Bacalaos, merluzas, églefinos, etc.
Gallinetas, lubinas, congrios, etc.
Jureles, lisas, etc.
Arenques, bonitos, barriletes
Caballas, peces-aguja, peces-sable, etc.
Crustáceos
Moluscos
Salmones
No clasificados o no identificados

TABLA 2 - DATOS DISPONIBLES SOBRE CAPTURA, ESFUERZO Y ABUNDANCIA DE OTRA PROCEDENCIA

País
Institución
Estadísticas de desembarques par áreas de pesca
Estadísticas de esfuerzo de captura
Datos sobre peces devueltos al mar
Datos sobre abundancia de recursos específicos (u obtenidos usando redes especiales) obtenidos de:

Pesca exploratoria
Reconocimientos ecoícos
Reconocimientos de huevos y larvas
Otros métodos

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País
Institución
Especies de peces
Dimensiones de longitud

Total
A la horquilla
Otras

Unidades redondeadas

La más práxima
Unidad inferior
No indicado

Agrupamiento de unidades

Explicación de los símbolos en la Tabla 2

X = datos disponibles detallados

O = solamente datos de naturaleza general (p.ej. estadísticas de desembarques por puertos, estadísticas de esfuerzo por número de embarcaciones o pescadores, etc.)

- = no datos disponibles

INTRODUCTION

The present document is a first attempt to prepare an inventory of fisheries data relevant to fish stock assessment, which are being collected in the various fisheries services, institues and laboratories in the world. The information is arranged in tabular form, by sea areas as distinguished in the FAO Yearbook of Fishery Statistics ("major fishing areas for statistical purposes").

The inventory is intended to provide information on where specific data are available, and to identify important gaps in the present data collection. It also shows the methods used in each institute for measuring and recording fish lengths.

The tables are summarized from detailed information contained in the replies to the Questionnaire on Biological Statistics for Fish Stock Assessment, which has been distributed to the institutes and laboratories since 1968. The present summary includes all institutes which have returned the questionnaire, but does not cover all institutes active in fisheries research. The detailed information for specific institutes and/or areas can be provided at request. Tables for some sea areas have been distributed before, as background papers for the discussions at regional councils and commissions.

The information is grouped in four tables.

Table 1 gives the magnitude of the landings, which are covered by the research programme of the institutes for the area concerned, by species groups. These data may be equal to the national landings, but are not necessarily so. The data are based on the landings in 1966.

Table 2 shows the availability of data by fishing area and of effort statistics for the above landings, and gives a rough idea of the detail of these statistics. It also shows whether the institutes undertake other type of research from which information on fish abundance can be obtained (exploratory fishing, echo surveys, etc.).

Table 3 provides information on the availability of data on length and age composition of the catches, by species, and the years covered by these data.

Table 4 contains information on the length dimensions of the fish measured, and on the units in which these dimensions have been recorded.

The present tables are prepared on an experimental basis and are given in English only. As a guide for use in other languages, translations of the table headings in French and Spanish are given in the "Table of Contents". On the basis of the comments, corrections and amendments received, it is planned to prepare a revised and updated trilingual version at a later date. Arrangements are also being made to enable the preparation of detailed summaries on specialized items when required. Any comments on the present issue and additional information should be sent to the FAO Fishery Data Centre, Fisheries Department, FAO, Via delle Terme di Caracalla, Rome 00100.

INTRODUCTION

Le présent document est une première tentative de préparation d'un inventaire de données des pêches concernant l'évaluation des stocks de poisson qui sont rassemblées dans les divers services des pêches, instituts et laboratoires à travers le monde. Ces renseignements sont donnés sous forme de tableau, par zones maritimes, telles qu'elles sont présentées dans l'Annuaire Statistique des Pêches de la FAO (principales zones de pêche à des fins statistiques).

L'inventaire est destiné à renseigner sur l'endroit où les données spécifiques sont disponibles et à identifier les graves lacunes de la collection actuelle de données de pêches. Il expose aussi les méthodes employées dans chaque Institut pour mesurer, classifier et répertorier les longueurs du poisson.

Les tableaux sont résumés à partir de renseignements détaillés fournis par les réponses au Questionnaire sur les statistiques biologiques pour l'évaluation des stocks de poisson, qui a été distribué aux instituts et laboratoires depuis 1968.

Le présent résumé comprend tous les instituts qui ont renvoyé le questionnaire, mais ne couvre pas tous les instituts s'occupant activement de recherches dans le domaine des pêches. Les renseignements détaillés sur des instituts et/ou zones particuliers peuvent être fournis sur demande. Des tableaux ont déjà été distribués pour certaines zones maritimes comme documents de base pour les débats de conseils et commissions régionaux.

Les renseignements sont groupés en quatre tableaux.

Le tableau 1 donne l'importance des débarquements, qui sont couverts par le programme de recherches des instituts de la zone intéressée, par groupes d'espèces. Ces données peuvent être égales aux débarquements nationaux, mais elles ne le sont pas obligatoirement. Les données sont basées sur les débarquements de 1966.

Le tableau 2 indique la disponibilité des données par zone de pêche et des statistiques de l'effort de pêche pour les débarquements mentionnés plus haut et donne une idée approximative du détail de ces statistiques. Il indique également si les instituts entreprennent d'autres types de recherche desquels on pourrait recueillir des renseignements sur l'abondance du poisson (pêche d'exploration, campagnes de prospection par écho-sondeurs, etc.).

Le tableau 3 fournit des renseignements sur la disponibilité de données sur la longueur et la composition de l'âge des prises, par espèces, ainsi que les années couvertes par ces données.

Le tableau 4 contient des renseignements sur les différentes longueurs du poisson mesuré et sur les unités de mesures utilisées.

Les présents tableaux sont préparés expérimentalement et sont donnés seulement en anglais. Pour permettre leur utilisation en d'autres langues, la traduction des en-têtes des tableaux en français et en espagnol est donnée dans la "Table des Matières". Une version trilingue, revisée et ajournée, sera préparée ultérieurement sur la base des commentaires, corrections et modifications que suscitera cette publication. Des mesures sont également prises pour faciliter la préparation de sections détaillées sur des sujets spécialisés, si nécessaire. Tout commentaire sur le présent document et tout renseignement additionnel peuvent être adressés au Centre de données des pêches de la FAO, Département des Pêches, Via delle Terme di Caracalla, 00100-Rome.

INTRODUCCION

El presente documento constituye un primer ensayo de preparar un inventario de datos pesqueros referentes a la evaluación de poblaciones de peces, los cuales se collectan en varios servicios de pesca, institutos y laboratorios del mundo. La información está compilada en forma tabular por áreas marítimas tal como se utiliza en los Anuarios Estadísticos de Pesca de la FAO ("áreas principales para estadísticas pesqueras").

El propósito del inventario es de proporcionar información sobre datos donde están disponibles y de identificar las lagunas más importantes en la colección de los datos presentes. También se señalan los métodos usados en cada institución para la medición y registro de longitudes de peces.

Las tablas están confeccionadas de la información detallada contenida en las respuestas al cuestionario bioestadístico para la evaluación de poblaciones de peces que ha sido distribuido a los institutos y laboratorios desde 1968. La presente reseña incluye todos los institutos que han devuelto los cuestionarios, pero de ningún modo cubre a todas instituciones activas en las investigaciones pesqueras. La información detallada para instituciones y/o áreas específicas puede ser provista al pedido. Previamente han sido distribuidas tablas para algunas áreas marítimas como documentos básicos en consejos y comisiones regionales.

La información está agrupada en cuatro tablas.

Tabla 1 presenta la magnitud de los desembarques por grupos de especies los cuales están estudiados por el programa de investigaciones de los institutos del área concerniente. Estos datos pueden ser iguales a los de los desembarques nacionales, pero no es siempre necesario así. Los datos se refieren a los desembarques del año 1966.

Tabla 2 contiene los datos estadísticos disponibles por áreas y esfuerzo de pesca correspondientes para los desembarques más arriba mencionados y da una idea general de los detalles de estas estadísticas. También muestra si los institutos realizan otre tipo de investigación de la cual se puede obtener información sobre abundancia de peces (pesca exploratoria, reconocimientos ecoicos, etc.).

Tabla 3 aporta información acerca de los datos disponibles sobre la composición por longitudes y edad de las capturas, por especies y los años correspondientes a estos datos.

Tabla 4 contiene información sobre las dimensiones de longitud de los peces medidos y las unidades en las cuales han sido registradas estas dimensiones.

Las presentes tablas están preparadas sobre una base experimental y se dan solamente en el idioma inglés. Además, como guía para el uso en otros idiomas, se agrega la traducción en inglés y francés del encabezamiento de las tablas en el "Contenido". Está planeado preparar para más adelante sobre la base de los comentarios, correcciones y cambios recibidos, una versión trilingual revisada y actualizada. También están hechos arreglos para permitir la preparación de reseñas detalladas sobre temas especializados si la necesidad lo require. Cualquier comentario sobre la presente publicación e información adicional deben ser enviados al Centro de Datos Pesqueros de la FAO, Departamento de Pesca, Via delle Terme di Caracalla, Roma 00100.

WORLD MAP: MAJOR FISHING AREAS FOR STATISTICAL PURPOSES

CARTE DU MONDE: PRINCIPALES ZONES DE PECHE A FINS STATISTIQUES

MAPA MUNDIAL: AREAS PRINCIPALES PARA ESTADISTICAS PESQUERAS

WORLD MAP: MAJOR FISHING AREAS FOR STATISTICAL PURPOSES

CARTE DU MONDE: PRINCIPALES ZONES DE PECHE A FINS STATISTIQUES

MAPA MUNDIAL: AREAS PRINCIPALES PARA ESTADISTICAS PESQUERAS

A - ATLANTIC, NORTHWESTERN	A - ATLANTIQUE, NORD-OUEST	A - ATLANTICO, NOROESTE
B - ATLANTIC, NORTHEASTERN	B - ATLANTIQUE, NORD-EST	B - ATLANTICO, NORDESTE
C - MEDITERRANEAN AND BLACK SEA	C - MEDITERRANEE ET MER NOIRE	C - MEDITERRANEO Y MAR NEGRO
D - PACIFIC, NORTHERN	D - PACIFIQUE, NORD	D - PACIFICO, NORTE
E - ATLANTIC, WESTERN-CENTRAL	E - ATLANTIQUE, OUEST-CENTRAL	E - ATLANTICO, OESTE CENTRAL
F - ATLANTIC, EASTERN-CENTRAL	F - ATLANTIQUE, EST-CENTRAL	F - ATLANTICO, ESTE CENTRAL
G - INDIAN OCEAN, WESTERN	G - OCEAN INDIEN, OUEST	G - OCEANO INDICO, OESTE
H - INDIAN OCEAN, EASTERN	H - OCEAN INDIEN, EST	H - OCEANO INDICO, ESTE
I - PACIFIC, WESTERN-CENTRAL	I - PACIFIQUE, OUEST-CENTRAL	I - PACIFICO, OESTE CENTRAL
J - PACIFIC, EASTERN-CENTRAL	J - PACIFIQUE, EST-CENTRAL	J - PACIFICO, ESTE CENTRAL
K - ATLANTIC, SOUTHWESTERN	K - ATLANTIQUE, SUD-OUEST	K - ATLANTICO, SUROESTE
L - ATLANTIC, SOUTHEASTERN	L - ATLANTIQUE, SUD-EST	L - ATLANTICO, SUDESTE
M - PACIFIC, SOUTHWESTERN	M - PACIFIQUE, SUD-OUEST	M - PACIFICO, SUROESTE
N - PACIFIC, SOUTHEASTERN	N - PACIFIQUE, SUD-EST	N - PACIFICO, SUDESTE

LIST OF REPORTING INSTITUTES BY COUNTRY

COUNTRY	CODE	INSTITUTE
Algeria	DMM	Ministère d'Etat Chargé des Transports Direction de la Marine Marchande des Pêches et des Ports 19, Rue Beauséjour - Alger
Argentina	DGP	Secretería de Agricultura y Ganaderia Dirección General de Pesca y Conservación de la Fauna Paseo Colon No 922 - Buenos Aires
	IBM	Instituto de Biologia Marina Casilla Postal 175, Playa Grande Mar Del Plata
Australia	VDFW	Victoria Department of Fisheries and Wildlife 605, Flinders St. Extension Melbourne 3000, Victoria
Belgium	RPM	Station de Recherches pour la Pêche Maritime Avenue Léopold II (Hôtel de Ville) Ostende
Brazil	CFO - URS	Center for Fisheries Oceanography University of Rio Grande Do Sul Grupo Especial Para a Execuçao de Pesquiras Maritimas e Lacustres Entreposto de Pesca - Rio Grande - Rio Grande Do Sul
	EBM - UC	Estação de Biologia Marina Universidade de Ceará Fortaleza, Ceará
	IO - SP	Instituto Oceanografico Universidade de São Paulo Caixa Postal 9075 - Alameda Eduardo Prado, 698 São Paulo
	SUDENE	Departamento de Recursos Naturaes Divisão de Recursos Pesqueiros Sudene - Recife, Pernanbuco
Bulgaria	RIFO	Research Institute of Fisheries and Oceanography Boul, Chervenoarmeisky - Varna
Canada	CDF	Department of Fisheries International Fisheries Service Ottawa 8
	FRB - N	Fisheries Research Board of Canada Biological Station Nanaimo, B.C.
	FRB - SA	Fisheries Research Board of Canada Biological Station St. Andrews, N.B.

COUNTRY	CODE	INSTITUTE
Ceylon	CEDF	Department of Fisheries Galle Face, P.O. Box 531 Colombo 3
	CEFC	Ceylon Fisheries Corporation Trawler Research Section Galle Face, P.O. Box 258 Colombo 3
Chile	CDP	Ministero de Agricultura Division de Pesca Compañia 1555 - Santiago
	EBM	Estacion de Biologia Marina Casilla 13 - D - Viña del Mar
	IFP	Instituto de Fomento Pesquero Avenida Pedro de Valdivia 2633 Casilla 1287 - Santiago
China, Rep. of	TFRI	Taiwan Fisheries Research Institute 125, Hon - i Road Keelung, Taiwan
	TIFB	The Institute of Fisheries Biology National Taiwan University Taipei, Taiwan
Congo (Brazza.)	ORSTOM-PN	Centre Orstom de Pointe-Noire B.P. 1286 - Pointe-Noire
Cuba	CIP	Instituto Nacional de la Pesca Centro de Investigaciones Pesqueras Playa Habana - Bauta, Habana
Cyprus	CYFD	Fisheries Department Athalassa, Nicosia
Dahomey	DSP	Service des Pêches B.P. 383 - 1, Rue Bel Air Cotonou
Denmark	DFH	Danmarks Fisheri og Havundesøgelser Charlottenlund Slot Charlottenlund
	DGF	Grønlands Fiskeriundersøgelser Jaegersborg Alle 1B 2920 Charlottenlund
Finland	BFI	Bureau of Fisheries Investigation Fabianinkatu 32 VI Helsinki 17
France	ISTPM - B	Institut Scientifique et Technique des Pêches Maritimes Laboratoire de Boulogne sur Mer 150, Quai Gambetta 62, Boulogne sur Mer

COUNTRY	CODE	INSTITUTE
France (cont.)	ISTPM-N	Institut Scientifique et Technique des Pêches Maritimes La Noe Route de la Jonelière B.P. 1049 44 Nantes
	ISTPM-R	Institut Scientifique et Technique des Pêches Maritimes Laboratoire de la Rochelle 74, Allées du Mail 17, la Rochelle
	ISTPM-S	Institut Scientifique et Technique des Pêches Maritimes Laboratoire de Sète 1, Ancienne Route D'Agde 34 Sète
	SME	Station Marine D'Endoume Rue de la Batterie des Lions 13 Marseille VII
Gabon	SEIA	Service de L'Elevage et des Industries Animales B.P. 136 Libreville
Germany, F.R. of	IFS	Institut Für Seefischerei Bundesforschungsanstalt Für Fischerei 2 Hambourg 50 Palmaille 9
Ghana	MAFRU	Ministry of Agriculture Fishery Research Unit P.O. Box 62 Tema, Community 2
Greece	LFR	Ministry of Agriculture Laboratory of Fisheries Research Kanigos Square - Athens
Guam (U.S.A.)	GFWD	Fish and Wildlife Division Department of Agriculture Government of Guam Agana
Guatemala	DPM	Ministero de Pesca Maritima Departamento de Pesca Maritima Dirección General de Recursos Naturaes Renovables Division de Fauna Guatemala City
Haiti	HSP	Service de Pêcheries Port-Au-Prince
Hong Kong	HFRS	Agricultural and Fisheries Department Fisheries Research Station Shek Pai Wan Road Aberdeen
Iceland	MRI	Marine Research Institute Skulagata, 4 Reykjavik

COUNTRY	CODE	INSTITUTE
India	CMFRI - M	Central Marine Fisheries Research Institute Marine Fisheries P.O. Mandapam Camp, Ramnad District Madras
	CMFRI - T	Central Marine Fisheries Research Unit 93, North-Beach Road Tuticorin 1 Madras
	MBRS - AU	Marine Biological Research Station Annamalai University Porto Novo Madras
	SIFS - RAM	Survey-Cum-Inshore Fishing Station Rameswaram Madras
	SIFS - ROY	Survey-Cum-Inshore Fishing Centre Royapuram Madras, 13
Iraq	IFD	Fisheries Division Ministry of Food and Agriculture Zaafaraniya Baghdad
Ireland	IDAF	Department of Agriculture and Fisheries Fisheries Division 3, Cathal Brugha Street Dublin 1
Israel	SFRS	Department of Fisheries Sea Fisheries Research Station P.O. Box 699 Haifa
Italy	LBMP - F	Laboratorio di Biologia Marina e Pesca Viale Adriatico,54 61032 Fano
Ivory Coast	ORSTOM - A	Centre de Recherches Océanographiques (Orstom) 29, Rue des Pêcheurs B.P.V. 18 Abidjan
Japan	FRO	Fukuoka Regional Office Ministry of Agriculture and Forestry Fisheries Agency No. 6-3 Ishishiro Fukuoka
	FSFRL	Far Seas Fisheries Research Laboratory 1000 Orido Shimuzu 424, Shizuoka - Ken
	SRFRL	Seikai Regional Fisheries Research Laboratory 49, Kokucho Nagasaki

COUNTRY	CODE	INSTITUTE
Japan (cont'd)	TRFRL	Tohoku Regional Fisheries Research Laboratory Shiwagama Miyagi
Libya	LDF	Directorate of Fisheries Tripoli
Malaysia	FFD	Ministry of Agriculture and Cooperative Federal Fisheries Department Swettenham Road Kuala Lumpur, Selagor
Mexico	INIBP - G	Instituto Nacional de Investigaciones Biologica Pesquera Estacion de Biologia Pesquera Guaymas, Sonora
Morocco	IPM	Institut de Pêches Maritimes Service D'Océanographie Rue de Tiznit Casablanca
Netherlands	RIVO	Rijksintituut Voor Visseryonderzoek P.O. Box 68 Ijmuiden
Netherlands Antille	CMBI	Caribbean Marine Biological Institute Piscadera Baai, P.O. Box 2090 Curaçao
	MSEA	Ministry of Social & Economic Affairs Willemstad, Curaçao
New Zealand	MD	Marine Department T and G Buildings Grey Street Wellington C.I.
Nigeria	FFS	Federal Fisheries Service P.M.B. 12529 Lagos
Norway	FDHI	Fiskeridirektoratets Havforskningsinstitutt Nordnesparken, 2 Postboks 2906 Bergen
Panama	DDF	Ministero de Agricultura, Comercio e Industrias Departamento de Pesca Appartado 3318 Panama
Peru	IMARPE	Instituto del Mar del Peru Appartado Postal 3734 Lima
Philippines	PFC	Marine Fisheries Biology Division Philippines Fisheries Commission P.O. Box 623 Manila

COUNTRY	CODE	INSTITUTE
Poland	SFI	Sea Fisheries Institute Aleja Zjednoczenia 1 Gdynia
Romania	IRPP	Institut de Recherches et des Projects de Pêche Boulevard Anna Ipatescu Bucarest
Senegal	SOPM	Ministère de L'Economie Rurale Service de L'Océanographie et des Pêches Maritimes B.P. 289 Dakar
Sierra Leone	SLDF	Ministry of Natural Resources Division of Fisheries Freetown
South Africa, Rep.	DSF	Department of Industries Division of Sea Fisheries Beach Road, Sea Point Cape Town
Spain	IIP - B	Laboratorio del Instituto de Investigaciones Pesqueras Paseo Nacional, S/N Barcelona (3)
	IIP - C	Laboratorio del Instituto de Investigaciones Pesqueras Cadiz
	IIP - GC	Laboratorio del Instituto de Investigaciones Pesqueras Monturiol 2 Grao de Castellon
	IIP - V	Laboratorio del Instituto de Investigaciones Pesqueras Avenida Orillamar 47, Puerto Pesquero Vigo
Sudan	GFD	Ministry of Animal Resources Game and Fisheries Department Red Sea Fisheries Section P.O. Box 336 Khartoum
Sweden	IMR	Institute of Marine Research Lysekil
Syria	SFD	Ministry of Agriculture and Agrarian Reform Fisheries Division Damascus
Tunisia	INSTOP	Institut National Scientifique et Technique D'Océanographie et de Pêche Salammbo
Turkey	FDMFO	Fisheries Directorate of Meat and Fish Office Besiktas, Istanbul
	IUHAE	Istanbul Univesitesi Hidrobioloji Apastirma Enstitusu Baltalimani, Caddesi No 80 Emirgân, Istanbul

COUNTRY	CODE	INSTITUTE
U.S.S.R.	ATNIRO	Atlantic Research Institute of Marine Fisheries and Oceanography 5, Dmitry Donskoy Street Kaliningrad
	PINRO	Polar Research Institute of Marine Fisheries and Oceanography Knipovichst, 6 Murmansk
U.A.R.	ICF	Institute of Oceanography and Fisheries Kayed Bay Alexandria
U.K.	MAF	Ministry of Agriculture and Fisheries 3, Whitehall Place London, S.W. 1
	MAF-L	Ministry of Agriculture and Fisheries Fisheries Laboratory Lowestoft, Suffolk
	ML-A	Department of Agriculture and Fisheries for Scotland Marine Laboratory P.O. Box 101 Victoria Road, Torry Aberdeen, AB9, 8DB
U.S.A.	ADFG	Alaska Department of Fish and Game 1018 International Airport Road Anchorage, Alaska 99502
	ASRSC	Atlantic Sea Run Salmon Commission Fishery Office Orono, Maine 04473
	BCF-DC	Bureau of Commercial Fisheries 777, 14th Street, N.W. Washington, D.C. 20240
	BCF-B	Bureau of Commercial Fisheries Biological Laboratory Pivers Island Beaufort, N. Carolina 28516
	BCF-BH	Bureau of Commercial Fisheries Biological Laboratory P.O. Box 267 Boothbay Harbor, Maine 04538
	BCF-GC	Bureau of Commercial Fisheries Gulf Coast Research Laboratory 600, South Street New Orleans, Louisiana 70130
	BCF-S	Bureau of Commercial Fisheries Biological Laboratory 2725 Montlake Boulevard E. Seattle, Washington 98102

COUNTRY	CODE	INSTITUTE
U.S.A. (cont'd)	BCF-TA	Bureau of Commercial Fisheries Tropical Atlantic Biological Laboratory 75 Virginia Beach Drive Miami, Florida 33149;
	BSFW-SH	Bureau of Sport Fisheries and Wildlife Sandy Hook Marine Laboratory P.O. Box 428, Highlands, New Jersey 07732.
	CFG	California Department of Fish and Game State Fisheries Laboratory 511, Tuna Street Terminal Island, California 90731
	FDMR	Florida Department of Natural Resourses Division of Marine Laboratory P.O. Brawer F St. Petersburg, Florida 33731;
	FRI-UW	Fisheries Research Institute College of Fisheries University of Washington 260, Fisheries Center Seattle, Washington 98105
	HFG	Hawaii Department of Land and Natural Resources Division of Fish and Game 400, S. Beretania Street Honolulu, Hawaii 96813;
	MSSF	Department of Sea and Shore Fisheries State House Augusta, Maine 04330
	OFC	Oregon Fish Commission Fish Commission Research Laboratory Route 2, Box 31A Clackamas, Oregon 97015
	VIMS	Virginia Institute of Marine Sciences Gloucester Point, Virginia 23062
Uruguay	SOYP	Departamento Cientifico y Técnico del Servicio Oceanografico y de Pesca Julio Herrera y Obes 1475 Montevideo
Venezuela	CIP	Ministero de Agricultura y Cria Centro de Investigaciones Pesqueras Apartado 95 Cumana, G.Do Sucre
	FRDP	Ministero de Agricultura y Cria UNDP - FAO Fisheries Research and Development Project Apartado 2578 Caracas
Yugoslavia	IOF	Institute of Oceanography and Fisheries P.P. 104 Split

COUNTRY	CODE	INSTITUTE
International	FAO	FAO Sub - Regional Office for Africa Eastern Zone P.O. Box 30470 Nairobi, Kenya
	IATTC	Inter - American Tropical Tuna Commission Scripps Institution of Oceanography La Jolla, California 92037
	IPHC	International Pacific Halibut Commission Marine Science No 2 University of Washington Seattle, Washington 98105

Table 1. Sea Area A - Northwestern Atlantic
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
CANADA	FRB - N	67,210	189,564	36,098								
CUBA	CIF		600									
DENMARK	DGF	2,000	29,000	2,000					5,000		1,300	1,000
GERMANY, FED. REP. OF	IFS		155,000	18,000								
ICELAND	MRI		3,542	3,159								
JAPAN	FSFRL 1/2/						3,406	336				
NORWAY	FDHI		42,000									1,000
POLAND	SFI	4,655	36,477	15,051		14,663						
ROMANIA	IRPP		449			2,677		3				304
U.S.S.R.	ATNIRO		216,700			119,600						
	PINRO	8,400	96,100	17,700								4,900
U.K.	MAF - L	673	50,112	1,503								670
U.S.A.	ASRSC										4	
	BCF - DC	62,081	125,497	37,001					1,800	60,379		
	BCF - BH					26,000						
	MSSF								9,000			

1/ Quantities in thousand fish
2/ Includes landings from Areas B,E,F,K,L in 1965

Table 1. Sea Area B – Northeastern Atlantic
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
BELGIUM	RPM	10,300	28,100	3,800		1,400			1,700			3,700
DENMARK	DFH	13,800	65,600	83,300		63,400					1,380	55,400
FINLAND	BFI					44,400					30,000	1,300
FRANCE	ISTPM – B		93,365			16,225		14,945				
	ISTPM – N					15,000						
	ISTPM – R		7,320	1,520								
ICELAND	MRI	7,000	290,000	28,000		769,000			4,900		125,000	
IRELAND	IDAF	2,382	11,472			16,467		1,507	1,717	3,489		1,310
JAPAN	FSFRL 1/											
NETHERLANDS	RIVO	72,377	61,598			75,000		15,012	13,000			
NORWAY	FDHI		84,800			1,179,600		460,000			287,200	
POLAND	SFI	712	55,719			104,414		2,297				
SPAIN	IIP – C						2,329					
SWEDEN	IMR	2,100	47,100			220,400		13,800		2,300	1,300	24,900
U.K.	MAF								3,300			
	MAF – L	42,350	333,182	20,126	217	22,867		6,802				12,126
	ML – A	7,900	208,700			144,600						

1/ See Area A footnote 1/and 2/

Table 1. Sea Area C - Mediterranean and Black Sea
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
ALGERIA	DMM					13,280						
BULGARIA	RIFO	420		120	710	180	1,440	220				
CYPRUS	CYFD			515								
FRANCE	ISTPM - S					18,663	1,000	400				8,000
GREECE	LFR		800	14,600	2,800	16,200	1,700	500		1,500		
ISRAEL	SFRS					1,200						300
ITALY	LBMP - F	627				4,660						
LYBIA	LDF			1,500		1,000	1,300					
MOROCCO	IPM					7,400	500	200				
SPAIN	IIP - B		3,417	361	841	4,663		867	460	414		
	IIP - GC			330	200	6,050		430				
TURKEY	FDMFO				6	17	11	3				
	IUHAE	1,101		31	2,554	2,201		2,262	75			
U.A.R.	IOF	255	58	4,392	622	1,233		380	3,733			4,375
YUGOSLAVIA	IOF		386	2,629	663	17,298	384	2,312	196	177		357

Table 1. Sea Area D - Northern Pacific
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
CANADA	CDF	22,000	13,000	2,000		139,000					76,000	
	FRB - N	6,018	14,470	4,896		139,549			2,831		76,776	168
JAPAN	FSFRL	67,800	293,100	117,200		27,500			28,100		99,000	
	TRFRL[1]				238,000							
U.S.A.	ADFG	13,125		733		9,034			87,338		151,210	108
	BCF - DC									25,000[2]		
	BCF - S	11,167	8,200	16,711							20,294	7,456
	FRI - UW	5,000	6,000	17,000								
	OFC										7,222	520
INTERNA-TIONAL	IPHC[3]	37,600										

1/ Includes landings from Area I
2/ Includes landings from Areas E, J
3/ Includes landings from Area J

Table 1. Sea Area E - Western-Central Atlantic
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
CUBA	CIP			7,500			1,600	900	2,700			100
HAITI	USP			495	826	1,980			150			
JAPAN	FSFRL 1/											
U.S.A.	BCF - DC					654,500			100,000	2/		
	BCF - B					636,000						
	BCF - GC					150,000			3,500			
	FDMR			8,500	16,000	19,900		6,800				
	VIMS			1,400								15,200
VENEZUELA	CIP				3,600	46,000	3,400	4,000				
	FRDP			17,547	4,002				3,532	5,626		

1/ See Area A footnote 1/ and 2/
2/ See Area D footnote 2/

Table 1. Sea Area F - Eastern-Central Atlantic
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
CHINA, REP. OF	TFRI 1/			52,188		34,690	26,671	40,877	13,748	14,351		17,593
CONGO (BRAZZA.)	ORSTOM - PN	620		5,961	393	1,800	8,173					1,414
DAHOMEY	DSP	45		1,141	128							59
GABON	SEIA	63		1,060	299		25		4			318
GHANA	MAFRU	1,500		21,207	7,901	7,100		1,300				4,300
GREECE	LFR			16,700	600				3,000	700		
IVORY COAST	ORSTOM - A	983		12,766	2,639	15,200	12,643		167			3,000
JAPAN	FSFRL 2/											
NIGERIA	FFS	60		421	40				18			460
POLAND	SFI				4,962			7,461				31,138
SENEGAL	SOPM											113,287
SIERRA LEONE	SLDF			812	171	1,800						

1/ Includes landings from Areas G, H, I
2/ See Area A footnote 1/ and 2/

Table 1. Sea Area G - Western Indian Ocean
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
CEYLON	CEDF			3,800	3,000		3,100	2,800				23,400
	CEFC			1,050	200							420
CHINA, REP. OF	TFRI 1/											
INDIA	CMFRI - M			120,000		295,000		73,000	81,000			
	SIFS - ROY			12					1			7
IRAQ	IFD	13			175	33						1,030
JAPAN	FSFRL 2/3/						2,242	232				
MALAYSIA	FFD						9,850	560				380
SUDAN	GFD											350
INTERNA-TIONAL	FAO			2,500				500				3,400

1/ See Area F footnote 1/
2/ Includes landings from Area H in 1965
3/ Quantities in 1,000 fish

Table 1. Sea Area H - Eastern Indian Ocean
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
CEYLON	CEDF			7,700	4,800		6,700	2,200				37,000
CHINA, REP. OF	TFRI 1/											
INDIA	CMFRI - T			107		193	20	51				33
	MBRS - AU			98	1	44		63	12			33
	SIFS - RAM			120								15
JAPAN	FSFRL 2/											

1/ See Area F footnote 1/
2/ See Area G footnote 2/ and 3/

Table 1. Sea Area I - Western-Central Pacific
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
CHINA, REP. OF	TFRI 1/											
	TIFB			24,610 2/	1,762							
GUAM(U.S.A.)	GFWD			2								1
HONG KONG	HFRS			29,500	1,400			1,400	1,800			25,213
JAPAN	FRO	16,000		171,000				33,000	3,000			102,000
	FSFRL 3/						3,042	176				
	SRFRL				152,200	80,900		116,800				
	TRFRL 4/											
MALAYSIA	FFD			19,200	36,580	27,610	3,930	32,580	20,240			65,610
PHILIPPINES	PFC	3,000		66,170	111,400	34,230	7,700	14,200	11,500			

1/ See Area F footnote 1/
2/ Refers to 1958
3/ Quantities in 1,000 fish landed in 1965
4/ See Area D footnote 1/

Table 1. Sea Area J - Eastern-Central Pacific
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
GUATEMALA	DFM								1,117	5		299
JAPAN	FSFRL 1/						572	706				
MEXICO	INIEP - G	42		421	28			214				116
PANAMA, REP. OF	DDP					66						
	BCF - CD									2/		
	CFG	7,257		6,350		28,123	116,120	19,958	5,443	10,886	4,536	
	HFG			187	514	16	4,852	242	15	6		71
INTERNA-TIONAL	CFG & INIEP-G				25	57		6				
	IATTC						146					
	IPHC 3/											

1/ Quantities in 1,000 fish landed in 1965
2/ See Area D footnote 2/
3/ See Area D footnote 3/

Table 1. Sea Area K - Southwestern Atlantic
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
ARGENTINA	DGP		68,500	85,600	3,700	10,900	1,700	16,300		1,000	1,400	3,600
BRAZIL	CFO - URS		19,170	24,100	953	1,473			645			
	EBM - UC			3,661		2,192		7,414	2,832			12,359
	IO - SP			800	4,000							
	SUDENE			2,469	269				3,445	4,320		
CUBA	CIP						300					
JAPAN	FSFRL 1/											

1/ See Area A footnote 1/ and 2/

Table 1. Sea Area L – Southeastern Atlantic
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
BULGARIA	RIFO		8,680	810	2,900	3,840						
JAPAN	FSFRL 1/											
S. AFRICA REP.	DSF	2,593	113,263	9,021	31,404	325,964		64,669	10,342	1,270		29,034

1/ See Area A footnote 1/ and 2/

Table 1. Sea Area M - Southwestern Pacific
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
AUSTRALIA	VDFW		100	1,450	1,200				800	14,300		2,400
NEW ZEALAND	MD	1,727		17,273	2,743				6,503	12,396		1,016

Table 1. Sea Area N - Southeastern Pacific
Commercial landings 1966 (in tons)

Country	Institute	Landings of main groups of fish studied by the reporting institutes										
		Flounders, halibuts, soles, etc.	Cods, hakes, haddocks, etc.	Redfishes, basses, congers, etc.	Jacks, mullets, etc.	Herrings, sardines, anchovies, etc.	Tunas, bonitos, skip-jacks	Mackerels, billfishes, cutlass-fishes, etc.	Crusta-ceans	Molluscs	Salmon	Unsorted or un-identified
CHILE	CDP	399	94,379	7,879	21,231	1,153,144	13,232	10,890				7,592
	IFP		102,000	300	10,000	1,128,000	9,000		22,180			55,000
PERU	IMARPE			18,300	9,700	8,545,100	83,300	7,600				45,000

Table 2. Sea Area A - Northwestern Atlantic
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
CANADA	FRBC - N	X	X	0	X	X	X	-
	FRBC - SA	X	X	-	X	-	-	-
CUBA	CIP	X	X	-	-	-	-	-
DENMARK	DGF	0	0	0	X	-	X	X
GERMANY, FED. REP. OF	IFS	X	X	X	-	-	-	-
ICELAND	MRI	X	X	0	X	-	-	-
JAPAN	FSFRL[1/]	X	X	-	-	-	-	-
NORWAY	FDHI	X	X	X	-	-	-	-
POLAND	SFI	X	X	X	-	-	-	-
ROMANIA	IRPP	X	X	X	-	X	-	-
U.S.S.R.	ATNIRO	X	X	-	X	-	X	-
	PINRO	X	X	X	-	-	-	X
U.K.	MAF - L	0	X	X	X	X	X	-
U.S.A.	ASRSC	X	X	-	-	-	-	X
	BCF - DC	X	X	X	X	-	-	-
	BCF - BH	X	0	-	X	-	X	-
	MSSF	0	X	-	-	-	-	-

1/ Refers also to Areas B, E, F, K, L

X = detailed data available
0 = only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- = no data

Table 2. Sea Area B - Northeastern Atlantic
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
BELGIUM	RPM	X	X	-	-	-	-	-
DENMARK	DFH	X	X	X	X	X	X	-
FINLAND	BFI	O	X	-	X	X	-	-
FRANCE	ISTPM - B	X	X	O	X	X	-	-
	ISTPM - N	O	O	-	X	X	X	X
	ISTPM - R	X	O	-	X	-	-	-
ICELAND	MRI	X	X	O	X	X	X	-
ISRAEL	IDAF	X	X	X	X	X	-	-
JAPAN	FSFRL 1/							
NETHERLANDS	RIVO	X	X	O	X	-	X	-
NORWAY	FDHI	X	O	-	X	X	-	-
POLAND	SFI	X	X	X	X	X	X	-
SPAIN	IIP - C	X	X	-	-	-	-	-
SWEDEN	IMR	O	-	O	X	X	X	-
U.K.	MAF	X	X	O	X	-	-	X
	MAF - L	X	X	X	X	X	X	-
	ML - A	X	X	O	X	X	X	-

1/ See Area A footnote 1/

X = detailed data available
O = only data of a general nature available (i.e. landing statistics by port, effort stitistics by number of boats or fishermen, etc.)
- = no data

Table 2. Sea Area C – Mediterranean and Black Sea
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
ALGERIA	DMM	O	–	–	–	–	–	–
BULGARIA	RIFO	O	–	–	–	–	–	–
CYPRUS	CYFD	X	X	X	X	X	–	–
FRANCE	ISTPM - S	O	X	–	X	X	X	–
	SME	–	–	–	X	X	X	X
GREECE	LFR	O	O	–	–	–	–	–
ISRAEL	SFRS	O	X	O	–	X	–	–
ITALY	LBMP - F	X	O	–	–	–	–	–
MOROCCO	IPM	O	–	–	–	–	–	–
SPAIN	IIP - B	O	O	–	X	–	–	–
	IIP - GC	X	O	–	–	–	–	–
SYRIA	SFD	–	O	–	–	–	–	–
TUNISIA	INSTOP	X	X	–	X	–	X	–
TURKEY	FDMFO	X	X	–	X	X	–	–
	IUHAE	–	–	–	–	X	–	–

X = detailed data available
O = only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
– = no data

Table 2. Sea Area D - Northern Pacific
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
CANADA	CDF	X	X	-	X	-	-	X
	FRB - N	X	X	0	X	-	X	-
JAPAN	FSFRL	X	X	-	X	-	-	-
	TRFRL 1/	X	X	X	X	-	X	-
U.S.A.	ADFG	X	X	-	X	-	X	X
	BCF - S	X	X	- 2/	X	X	-	-
	FRI - UW	X	X	0	-	-	-	-
	OFC	X	X	-	X	-	-	-
INTERNA-TIONAL	IPHC 3/	X	X	0	X	-	-	X

1/ Refers also to Area I
2/ Seems some data on discards are collected
3/ Refers also to Area J

X= detailed data available
O= only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- = no data

Table 2. Sea Area E – Western-Central Atlantic
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
CUBA	CIP	X	X	0	X	–	–	–
HAITI	HSP	0	X	0	–	–	–	–
JAPAN	FSFRL[1/]							
NETHERLANDS ANTILLES	CMBI	–	–	–	X	–	–	–
	MSEA	–	–	–	X	–	–	–
U.S.A.	BCF – DC	X	X	0	X	–	X	X
	BCF – B	X	0	–	–	–	–	–
	BCF – GC	X	X	–	X	–	–	–
	BCF – TA	X	X	–	X	–	–	–
	FDMR	0	X	–	X	–	X	–
	BSFW – SH	0	–	–	X	–	X	–
	VIMS	X	X	–	X	–	X	–
VENEZUELA	CIP	X	X	–	X	–	X	–
	FRDP	0	–	–	–	–	–	–

1/ See Area A footnote 1/

X = detailed data available
0 = only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
– = no data

Table 2. Sea Area F - Eastern-Central Atlantic
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
CHINA, REP. OF	TFRI 1/	-	X	0	X	-	-	-
CONGO (BRAZZA.)	ORSTOM - PN	X	X	X	X	-	-	-
DAHOMEY	DSP	-	0	-	-	-	-	-
GABON	SEIA	0	0	-	-	-	-	-
GHANA	MAFRU	0	0	-	X	-	X	-
IVORY COAST	ORSTOM - A	X	X	0	X	-	-	-
JAPAN	FSFRL 2/							
NIGERIA	FFS	X	0	-	-	-	-	-
POLAND	SFI	X	X	X	-	-	-	-
SENEGAL	SLDF	X	X	-	-	-	-	-
SIERRA LEONE	SOPM	X	X	-	X	-	-	-

1/ Refers also to Areas G, H, I
2/ See Area A footnote 1/

X = detailed data available
0 = only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- = no data

Table 2. Sea Area G – Western Indian Ocean
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
CEYLON	CEDF	0	–	–	–	–	–	–
	CEFC	X	X	X	–	–	–	–
CHINA, REP. OF	TFRI 1/							
INDIA	CMFRI – M	0	X	–	X	X	X	–
	SIFS – ROY	X	X	–	–	–	–	–
IRAQ	IFD	X	0	0	–	–	–	–
JAPAN	FSFRL 2/	X	X	X	–	–	–	X
MALAYSIA	FFD	X	X	X	–	–	–	–
SUDAN	GFD	0	0	0	–	–	–	–
INTERNA-TIONAL	FAO	0	X	–	X	–	–	–

1/ See Area F footnote 1/
2/ Refers also to Area H

X= detailed data available
0= only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
– = no data

Table 2. Sea Area H - Eastern Indian Ocean
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
CEYLON	CEDF	0	-	-	-	-	-	-
CHINA, REP. OF	TFRI 1/							
INDIA	CMFI - T	-	-	0	-	-	-	-
	MBRS -AU	X	X	X	-	-	-	-
	SIFS - RAM	0	X	-	-	-	-	-
JAPAN	FSFRL 2/							

1/ See Area F footnote 1/
2/ See Area G footnote 2/

X =detailed data available
0 =only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- =no data

Table 2. Sea Area I – Western-Central Pacific
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
CHINA, REP. OF	TFRI [1]							
	TIFB	X	X	-	-	-	-	-
GUAM (U.S.A.)	GFWD	-	X	-	X	-	-	-
HONG KONG	HFRS	O	X	X	X	-	-	-
JAPAN	FRO	X	X	X	-	-	X	-
	FSFRL	X	X	-	-	-	-	-
	SRFRL	X	X	O	-	X	X	-
	TRFRL [2]							
MALAYSIA	FFD	X	X	-	-	-	-	-
PHILIPPINES	PFC	X	-	-	X	X	-	-

1/ See Area F footnote 1/
2/ See Area D footnote 2/

X =detailed data available
O =only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- =no data

Table 2. Sea Area J - Eastern-Central Pacific
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
GUATEMALA	DPM	-	X	-	-	-	-	-
JAPAN	FSFRL	X	X	-	-	-	-	-
MEXICO	INIBP - G	O	-	X	-	-	-	-
PANAMA, REP. OF	DDP	X	X	-	-	-	-	-
U.S.A.	CFG	X	X	X	X	X	-	X
	HFG	X	X	X	-	-	-	-
INTERNATIONAL	CFG & INIBP - G	X	X	X	X	X	X	-
	IATTC	X	X	X	X	-	-	-
	IPHC 1/							

1/ See Area D footnote 3/

X = detailed data available
O = only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- = no data

Table 2. Sea Area K - Southwestern Atlantic
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
ARGENTINA	DGP	X	X	-	-	-	-	-
	IBM	-	-	-	X	X	X	-
BRAZIL	CFO - URS	X	X	-	-	X	X	-
	EBM - UC	X	X	X	-	-	-	-
	IO - SP	X	X	-	-	-	-	-
	SUDENE	X	X	0	X	-	-	-
CUBA	CIP	X	X	-	-	-	-	-
JAPAN	FSFRL 1/							
URUGUAY	SOYP	X	X	-	-	-	-	-

1/ See Area A footnote 1/

X = detailed data available
0 = only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- = no data

Table 2. Sea Area L - Southeastern Atlantic
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
BULGARIA	RIFO	X	X	-	-	-	-	-
JAPAN	FSFRL 1/							
S. AFRICA REP.	DSF	X	X	O	X	X	X	X
SPAIN	IIP - V	-	X	-	-	-	-	-

1/ See Area A footnote 1/

X =detailed data available
O =only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- =no data

Table 2. Sea Area M - Southwestern Pacific
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
AUSTRALIA	VDFW	X	X	-	X	-	X	X
NEW ZEALAND	MD	X	X	0	X	-	-	-

X =detailed data available
0 =only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- =no data

Table 2. **Sea Area** N - Southeastern Pacific
Availability of data on catch and effort, and abundance indications from other sources

Country	Institute	Landing statistics by fishing area	Effort statistics	Discard data	Data on abundance of specific resources (or using specific gear) from:			
					exploratory fishing	echo surveys	egg-larvae surveys	other methods
CHILE	CDP	0	X	0	-	-	-	-
	EBM	X	X	X	-	-	X	-
	IFP	X	X	-	X	X	X	-
PERU	IMARPE	0	X	-	-	-	X	-

X = detailed data available
0 = only data of a general nature available (i.e. landing statistics by port, effort statistics by number of boats or fishermen, etc.)
- = no data

Table 3. Sea Area A – Northwestern Atlantic

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), l indicates length measurements made, a age determinations obtained.)

Species	CANADA	DENMARK	GERMANY	ICELAND	JAPAN	POLAND	ROMANIA	U.S.S.R.		U.K.	U.S.A.		
	FRBC-N	DGF	IFS	MRI	FSFRL[1]	SFI	IRPP	ATNIRO	PINRO	MAF-L[2]	ASRSC	BCF-DC	BCF-BH
FLOUNDERS, etc.													
Glyptocephalus cynoglossus	1953 la												
Heterosomata spp.						1966 la							
Hippoglossoides platessoides	1953 la												
Limanda ferruginea	1965 la											1942 la	
Reinhardtius hippoglossoides	1965 la					1963 la							
CODS, HAKES, etc.													
Gadus callarias				1952 a									
Gadus morhua	1966 la	1924 la	1952 la			1966 la	1967 la		1957 la	la		1956 l	
Melanogrammus aeglefinus	1953 la					1965 la	1967 la		1960 la	la		1931 la	
Merluccius bilinearis								1962 la		l		1956 la[3]	
Urophycis chuss								1962 la				1957 l	
REDFISHES, etc.													
Sebastes marinus	1953 la			1956 l								1942 l	
Sebastes mentella	1953 la												
Sebastes spp.			1952 la			1966 l			1956 la				
Xiphias gladius	1958 l												
HERRINGS, etc.													
Clupea harengus	1946 la					1965 la	1967 la	1961 la					1963 la
Pomolobus aestivalis							1967 la						
TUNAS, etc.													
Thunnus alalunga	1963 l				1963 l								
Thunnus albacares	1963 l				1963 l								
Thunnus obesus	1963 l				1963 l								
Thunnus thynnus	1963 l												

Table 3. Sea Area A – (Cont'd)

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CANADA	DENMARK	GERMANY	ICELAND	JAPAN	POLAND	ROMANIA	U.S.S.R.		U.K.	U.S.A.		
	FRBC-N	DGF	IFS	MRI	FSFRL 1/	SFI	IRPP	ATNIRO	PINRO	MAF-L 2/	ASRSC	BCF-DC	BCF-BH
MACKERELS, etc.													
Makaira spp.					1963 1								
Scomber scombrus	1962 1a						1967 1						
CRUSTACEANS													
Pandalus borealis		1953 1											
MOLLUSCS													
Placopecten magel												1956 1(a) 4/	
SALMON													
Salmo solar		1964 1a								1a	1960 1a		

1/ Refers also to Areas B, E, F, K, L
2/ Data available for many years
3/ Age readings start in 1967
4/ Age readings only for 1960–65

Table 3. Sea Area B - Northeastern Atlantic

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	DENMARK	FINLAND	FRANCE			ICELAND	IRELAND	JAPAN	NETHER-LANDS	NORWAY	POLAND	SPAIN	U.K.		
	DFH	BFI	ISTPM-B	ISTPM-N	ISTPM-R	MRI	IDAF	FSFRL[1]	RIVO	FDHI	SFI	IIP-C	MAF	MAF-L[2]	ML-A
FLOUNDERS, etc.															
Heterosomata spp.											1921 la				
Limanda limanda	1965 la														
Pleuronectes platessa	1965 la					1954 a	(1962-1966 la)		1956 la					la	
Solea solea	1960 la								1956 la					la	
CODS, HAKES, etc.															
Gadus morhua	1965 la		1965 la			1928 la			1967 la		1958 la			la	1963 la
Melanogrammus aeglefinus						1935 la			1967 la					la	1957 la
Merlangius merlangus	1961 la						1963 la				1958 la			la	1967 la
Merluccius merluccius														1	
Odontogadus merlangus			1964 la		1966 1				1956 la						
Pollachius virens										1954 la	1958 la				
REDFISHES, etc.															
Ammodytes spp.															
Sebastodes marinus	1954 la					1954 la									
HERRINGS, etc.															
Clupea harengus	1951 la	1964 la	1946 la			1931 a	(1962-1966 la)		1956 la	1907 la	1946 la				1955 la
Sprattus sprattus															1961 la
Sardina pilchardus				1942 la											
TUNAS, BONITOS, etc.															
Auxis thazard												1961 1			
Euthynnus alletteratus												1963 1			
Sarda sarda												1963 1			
Thunnus thynnus										1954 la		1956 la			
MACKERELS, etc.															
Scomber scombrus									1959 la	1945 la	1958 la				

Table 3. Sea Area B - (Cont'd)

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	DENMARK	FINLAND	FRANCE			ICELAND	IRELAND	JAPAN	NETHER-LANDS	NORWAY	POLAND	SPAIN	U.K.		
	DFH	BFI	ISTPM-B	ISTPM-N	ISTPM-R	MRI	IDAF	FSFRL 1/	RIVO	FDHI	SFI	11P-C	MAF	MAF-L 2/	ML-A
CRUSTACEANS															
Cancer pagurus															
Crangon crangon									(1958-1964 1)				1961 1		
Homarus vulgaris							1957 1 3/								
Nephrops norvegicus							1959 1 3/						1954 1		
Palinurus vulgaris							1965 1						1962 1		
													1962 1		
MOLLUSCS															
Mollatus villosus															
Mytilus edulis										1960 1a					
Ostrea edulis							1960 1								
Pecten maximus							1961 1								
							1950 1a 3/								
SALMONS															
Salmo solar	1958 1a														
Salmo trutta	1958 1a														

1/ See Area A footnote 1/

2/ Data available for many years

3/ Irregular sampling

Table 3. Sea Area C - Mediterranean and Black Sea

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	BULGARIA	CYPRUS	FRANCE	ISRAEL	ITALY	SPAIN		TUNISIA	TURKEY		U.A.R.	YUGOSLAVIA	
	RIFO	CYFD	ISTPM-S	SFRS	LBM-F	IIP-B	IIP-GC	INSTOP	FDMFO	IUHAE	IOF[1]	IOF	
FLOUNDERS,etc.													
Heterosomata spp.	1954 1a		(1965 1a)		1967 1a					1967 1	1960 1a		
CODS,HAKES,etc.													
Gadus poutassou						1955 1a							
Merluccius merluccius			(1958 1a)			1964 1a		1964 1					
Phycis blennoides						1955 1a							
REDFISHES,etc.													
Chrysophris aurata											1960 1a		
Gobiidae	1954 1a												
Maena manis		1965 1a											
Mullus barbatus		1965 1a						1964 1		1967 1			
Mullus surmuletus		1965 1a											
Mullus spp.	1954 1a					1961 1a					1960 1a		
Pagellus erythrinnus		1965 1a											
Pagrus and Pagellus											1960 1a		
Saurida spp.											1960 1a		
Sciaena aquilla											1960 1a		
Scorpaenidae			(1965 1a)										
JACKS,MULLETS,etc.													
Mugil spp.	1954 1a										1960 1a		
Pomatomus saltatrix	1954 1a												
Temnodon saltator										1967 1			
Trachurus mediterraneus	1954 1a									1967 1			
Trachurus spp.						1965 1a							
HERRINGS,etc.													
Clupea sprattus	1954 1a				(1967 1a)							(1960-1965 1)	

Table 3. Sea Area C - (Cont'd)

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	BULGARIA	CYPRUS	FRANCE	ISRAEL	ITALY	SPAIN		TUNISIA	TURKEY		U. A. R.	YUGOSLAVIA	
	RIFO	CYFD	ISTPM-S	SFRS	LEM-F	IIP-B	IIP-GC	INSTOP	FDMFO	IUHAE	IOF[1]	IOF	
HERRINGS (cont'd)													
Engraulis encrasicholus			1960 1a		(1967 1a)				1957 1a				
Sardina pilchardus			1958 1a		(1967 1a)	1961 1a	1956 1a		1958 1a			(1946 1)	
Sardinella aurita				1956 1 (a)									
Sardinella spp.											1960 1a		
TUNAS, BONITOS, etc.													
Sarda sarda	1954 1a								1957 1a	1967 1			
Thunnus thynnus			(1958-1960 1a)							1967 1			
MACKERELS, etc.													
Scomber japonicus										1967 1			
Scomber scombrus	1954 1a		1964 1a			1950 1a				1967 1			
Xiphias gladius										1967 1			
CRUSTACEANS													
Aristeus antennatus						1961 1							
Leander serratus			(1957-1962 1)										
Natantia											1960 1		
MOLLUSCS													
Eledone moschata						1955 1							

1/Irregular sampling

Table 3. **Sea Area D – Northern Pacific**
Availability of samples of length and age distributions of commercial catches
(The table gives the year in which sampling started (or period covered), l indicates length measurements made, a age determinations obtained.)

Species	CANADA	JAPAN		U.S.A.				INTERNATIONAL
	FRB-N	FSFRL	TRFRL 1/	ADFG	ECF-S	FRI-UW	OFC	IPHC 2/
FLOUNDERS, etc.								
Eopsetta jordani	1945 la					1949 la		
Hippoglossus stenolepsis		1963 la						1932 la
Isopsetta isolepsis	1946 la							
Lepidosetta bilineata	1945 la					1957 la		
Limanda aspera		1963 la						
Microstomus pacificus						1951 la		
Parophrys melanosticus						1967 la		
Parophrys stellatus						1956 la		
Parophrys velutus	1945 la					1953 la		
CODS, etc.								
Gadus macrocephalus	1950 l	1963 la				1954 l		
Merluccius products					1965 la	1967 la		
Theragra chalcogramma		1963 la						
REDFISHES, etc.								
Anoplopoma finbria	1954 l	1963 la				1953 l		
Ophiodon elongatus	1957 l					1956 l		
Sebastodes alutus	1958 la	1963 la			1968 la	1966 la		
Sebastodes spp.					1968 la			
JACKS, MULLETS, etc.								
Cololabis saira			1949 la					
HERRINGS, etc.								
Clupea pollasii	1933 la							
CRUSTACEANS								
Cancer magisters	1947 l			1960 la				
Paralithodes spp.		1954 l						

Table 3. Sea AreaD - (Cont'd)

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CANADA	JAPAN		U.S.A.				INTERNATIONAL					
	FRB-N[1]	FSFRL	TRFRL	ADFG	BCF-S	FRI-UW	OFC	IPHC[2]					
SALMONS													
Oncorhynchus gorbuska	1957 1a	1956 1a											
Oncorhynchus keta	1957 1a	1956 1a											
Oncorhynchus kisutch	1964 1a	1956 1a											
Oncorhynchus nerka	1912 1a	1956 1a											
Oncorhynchus tshawytscha	1957 1a	1956 1a					1957 1a						

1/ Refers also to Area I
2/ Refers also to Area J

Table 3. Sea Area E - Western-Central Atlantic

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CUBA	JAPAN	U.S.A.				VENEZUELA
	CIP	FSFRL 1/	BCF-B	BSFW-SH	FDMR	VIMS	CIP
REDFISHES, etc.							
Centropristis striatus					1966 la		
Epinephelus spp.					1963 la		
Rocens saxatilis						1967 la	
JACKS, etc.							
Pomotomidae				1961 la			
HERRINGS, etc.							
Brevoortia patronus			1964 la				
Brevoortia tirannus			1965 la				
Centengraulis edentulus							1957 la
Opisthonema oglinum					1967 la		
Sardinella anchovia							1957 la
MACKERELS, etc.							
Scomberomerus cavalla					1967 a		
Scomberomerus maculatus					1967 a		
Tetraptorus spp.	1967 1						
TUNAS, etc.							
Thunnus albacares	1967 1						1965 1
Thunnus obesus	1967 1						
Thunnus thynnus	1967 la						
CRUSTACEANS							
Penaeus duorarum	1966 1						
Penaeus schmitti	1966 1						

Table 3. Sea Area E - (Cont'd)
Availability of samples of length and age distributions of commercial catches
(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CANADA	JAPAN	U.S.A.				VENEZUELA							
	CIP	FSFRL 1/	BCF-B	BSFW-SH	FDMR	VIMS	CIP							
SHADS														
Alosa aestivalis						1965 la								
Alosa pseudoharengus						1965 la								
Alosa sapidissima						1965 la								

1/ See Area A footnote 1/

Table 3. Sea Area F – Eastern-Central Atlantic

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), l indicates length measurements made, a age determinations obtained.)

Species	CHINA (REP.OF)	CONGO (BRAZZA.)	GHANA	IVORY COAST	JAPAN	NIGERIA	POLAND	SIERRA LEONE					
	TFRI 1/	ORSTOM-PN	MAFRU	ORSTOM-A	FSFRI 2/	FFS	SFI	SLDF					
REDFISHES, etc.													
Dentex angolensis		1967 la											
Pseudotolithus fonticulus		1964 la											
Pseudotolithus senegalensis		(1963-1965 la)				1964 la							
Pseudotolithus typus		(1963-1965 la)				1964 la							
JACKS, etc.													
Caranx hippos			1962 la										
Caranx spp.							1960 la						
Trachurus repturus							1967 la						
HERRINGS, etc.													
Sardinella aurita		1965 la	1962 la	1966 l									
Sardinella eba		1965 la		1966 l									
Sardinella maderensis								1966 l					
TUNAS, etc.													
Thunnus altacares		1965 l		1966 l									
Thunnidae	1954 l												
MACKERELS, etc.													
Scombridae	1967 l												

1/ Refers also to Areas G, H, I

2/ See Area A footnote 1/

Table 3. Sea Area G - Western Indian Ocean

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CHINA (REP. OF)	CEYLON		INDIA	JAPAN								
	TFRI [1]	CEDF	CEFC	CMFRI-M	FSFRL [2]								
RELFISHES, etc.													
Lethrinus nebulosus			1967 1										
Lethrinidae		1966 1											
Lutianidae		1966 1											
Serranidae		1966 1											
HERRINGS, etc.													
Sardinella longiceps				1950 1									
TUNAS, etc.													
Thunnus alalunga					1956 1								
Thunnus albacares					1953 1a								
Thunnus maccoyii					1953 1a								
Thunnus obesus					1953 1								
MACKERELS, etc.													
Makaira spp.					1953 1								
Rastrelliger kanagurta				1950 1									
Rastrelliger spp.		1959 1											
Scomberomorus spp.		1964 1											

1/ See Area F footnote 1/

2/ Refers also to Area H

Table 3. Sea Area H - Eastern Indian Ocean

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CHINA (REP.OF)	INDIA	JAPAN										
	TFRI 1/	MBRS	FSFRL 2/										
HERRINGS, etc.													
Sardinella fimbriata		1966 1a											

1/ See Area F footnote 1/

2/ See Area G footnote 2/

Table 3. Sea Area I - Western-Central Pacific

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CHINA, REP. OF		HONG KONG	JAPAN			PHILIPPINES						
	TFRI[1]	TIFB	HFRS	FSFRL	SRFRL	TRFRL[2]	PFC						
REDFISHES, etc.													
Argyrosomus argentatus					1958 1a								
Argyrosomus macrocephalus		(1955-1956 1)											
Argyrosomus nibe		(1953-1956 1)											
Gerris minuta							(1957-1960 1)						
Leiognatus bindus							(1957-1961 1)						
Leiognatus blochis							(1957-1960 1)						
Leiognatus daura							(1957-1960 1)						
Leiognatus insidiator							(1957-1961 1)						
Leiognatus leucipens							(1957-1958 1)						
Leiognatus ruconius							(1957-1962 1)						
Leiognatus splendens							(1957-1963 1)						
Lutjanus sanguineus			1965 1										
Muranesox cinereus			1966 1a		1958 1a								
Muranesox singaporeensis			(1966-1968 1a)										
Muranesox talabonoides			(1966-1968 1a)										
Nemipterus bathybus			1965 1a										

Table 3. Sea Area I - (Cont'd)

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CHINA, REP. OF		HONG KONG	JAPAN			PHILIPPINES	
	TFRI[1]	TIFB	HFRS	FSFRL	SRFRL	TRFRL[2]	PFC	
REDFISHES (cont'd)								
Nemipterus japonicus			1965 1					
Nemipterus virgatus			1965 1a				(1957-1959 1)	
Nibea nibe					1958 1a			
Otolithes argenteus							(1957-1960 1)	
Pagurus major					1958 1a			
Priacanthus macracanthus			1965 1					
Priacanthus tayenus			1965 1					
Pseudosciaena manchurica					1958 1a			
Pseudosciaena spp.							(1957-1963 1)	
Saurida gracilis							(1957-1960 1)	
Saurida undosegonius							1958 1	
Saurida tumbil			1967 1		1958 1a		(1957-1960 1)	
Sciaena indica							(1958-1961 1)	
Taius tuniform			1965 1					
Upeneus moluccensis			1965 1					
JACKS, MULLETS, etc.								
Caranx equula			1967 1					
Caranx malabaicus			1967 1					
Decapturus kureoides							1965 1	
Decapturus lajang							1965 1	
Decapturus marnadsi			1967 1					
Decapturus nacrosoma							1965 1	

Table 3. Sea Area I - (Cont'd)

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CHINA, REP. OF		HONG KONG	JAPAN			PHILIPPINES	
	TFRI[1]	TIFB	HFRS	FSFRL	SRFRL	TRFRL[2]	PFC	
JACKS, MULLETS (cont'd)								
Decapturus russelli							1965 1	
Mugil cephalus		1966 1a						
Trachurus japonicus					1959 1a			
HERRINGS, etc.								
Sardinella fimbriata							1966 1	
Sardinella longiceps							1965 1	
Sardinella perforata							1966 1	
Sardinella sinu							1965 1	
Stolephorus commesoni							1965 1	
Stolephorus indicus							1965 1	
Stolephorus heterolobus							1965 1	
Stolephorus pseudoheterolobus							1965 1	
Stolephorus serrated zolliger							(1957-1959 1)	
Stolephorus tri							(1956-1961 1)	
Stolephorus zollingerri							1965 1	
TUNAS, BONITOS, etc								
Auxis thazard							1965 1	
Thunnus alalunga				1955 1				
Thunnus albacares				1952 1a				
Thunnus maccoyii				1957 1a				
Thunnus obesus				1952 1a				
MACKERELS, etc.								
Makaira spp.				1952 1				
Pneumatophorus australiasicus							(1961-1962 1)	

Table 3. Sea Area I - (Cont'd)
Availability of samples of length and age distributions of commercial catches
(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CHINA, REP. OF		HONG KONG	JAPAN			PHILIPPINES	
	TFRI[1]	TIFB	HFRS	FSFRL	SRFRL	TRFRL[2]	PFC	
MACKERELS (cont'd)								
Pneumatophorus japonicus							1966 1	
Rastrelliger chrysosomus							(1957-1963 1)	
Rastrelliger chryzosmus							1967 1	
Rastrelliger kanagurta							1964 1	
Rastrelliger neglectus							1964 1	
Scomber japonicus					1959 1a			
Scomber tapeinaephalus					1959 1a			
Scomberomurus spp.			1967 1					
Trichiurus haumela					1958 1a		(1958-1961 1)	
CRUSTACEANS								
Metapenaeus censis							(1960-1962 1)	
Metapenaeus mastersii							(1960-1961 1)	
Metapenaeus monoceros							(1957-1959 1)	
Penaeus asper							(1960-1961 1)	
Penaeus canaliculatus							(1957-1959 1)	
Penaeus indiccus							(1957-1959 1)	
Penaeus merguiensis							(1960-1962 1)	

Table 3. Sea Area I - (Cont'd)

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CHINA, REP. OF		HONG KONG	JAPAN			PHILIPPINES						
	TFRI[1/]	TIFB	HFRS	FSFRL	SRFRL	TRFRL[2/]	PFC						
CRUSTACEANS (cont'd)													
Penaeus monodon							(1957-1959 1) (1960-1961 1)						
Penaeus simisulcatus													

1/ See Area F footnote 1/

2/ See Area D footnote 1/

Table 3. Sea Area J - Eastern-Central Pacific

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	GUATEMALA	JAPAN	PANAMA	U.S.A.	INTERNATIONAL						
	DPM	FSFRL	DDP	CFG	IATTC	INIBP-G & CFG	IPHC[1/]				
FLOUNDERS, etc.											
Eosetta jordani				1958 la							
Microstomus pacificus				1958 la							
Parophrys velutus				1958 la							
JACKS, etc.											
Trachurus symmetricus						1952 la					
HERRINGS, etc.											
Cetengraulis mysticetus			1951 la								
Engraulis mordax				1952 la		1952 la					
Opisthonema spp.			1963 la								
Sardinops caerulea						1932 la					
TUNAS, etc.											
Katsuwomes pelamis					1954 la						
Sarda chiliensis				1966 la							
Thunnus alalunga				1960 la							
Thunnus albacares		1960 1			1954 la						
Thunnus obesus		1960 1			1955 la						
Thunnus thynnus				1954 la							
MACKERELS, etc.											
Makaira spp.		1960 1									
Scomber japonicus				1939 la							
Pneumatophorus diego						1952 la					
CRUSTACEANS											
Cancer magister				1954 1							
Penaeus brevirostris	1966 1										
SALMON											
Oncorhynchus spp.				1948 la							

1/ See Area D footnote 2/

Table 3. Sea Area K - Southwestern Atlantic

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	ARGEN-TINA	BRAZIL				JAPAN	URUGUAY						
	IBM	CFO-URS	EBM-UC	IO-SP	SUDENE	FSFRL[1]	SOYP						
CODS, HAKES, etc.													
Merluccius merluccius hubbsi	1965 1a	1962 1a					1965 1a						
REDFISHES, etc.													
Cynoscion striatus							1965 1a						
Lutianus aya					1962 1a								
Lutianus purpureus			1966 1										
Micropogon furnieri				1961 1a									
Micropogon opercularis		1956 1a					1965 1a						
Pogonies cromis		1956 1											
Rachysurus barbus		1956 1											
Umbrina conosai		1956 1a											
JACKS, MULLETS, etc.													
Chloroscombrus chrysurus			1968 1										
Hirundicthys affinis					1961 1a								
Macrodon ancylodon		1956 1a		1961 1a									
Mugil brasileensis		1956 1a											
HERRINGS, etc.													
Brevoortia tyrannus		1956 1											
Engraulis anchoita	1965 1a												
Opistonema oglinum			1968 1										
Tarpon atlanticus			1962 1										
MACKERELS, etc.													
Scomber japonicus	1965 1a												

Table 3. Sea Area K - (Cont'd)

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	ARGEN-TINA	BRAZIL				JAPAN	URUGUAY						
	IBM	CFO-URS	EBM-UC	IO-SP	SUDENE	FSFRL 1/	SOYP						
MACKERELS (cont'd)													
Scomberomorus cavalla			1962 1										
Scomberomorus maculatus			1962 1										
CRUSTACEANS													
Cancer spp.			1967 1										
Palimurus argus					1961 1a								
Palimurus lobster			1961 1										
Penaeus spp.	(1956-1960 1)												
MOLLUSCS													
Mytella falcata					1965 1a								

1/ See Area A footnote 1/

Table 3. Sea Area L - Southeastern Atlantic
Availability of samples of length and age distributions of commercial catches
(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	BULGARIA	JAPAN	SOUTH AFRICA										
	RIFO	FSFRL 1/	DSF										
CODS, etc.													
Merluccius capensis	1965 1a		1967 1a										
REDFISHES, etc.													
Dentex macrophthalmus	1965 1a												
JACKS, etc.													
Trachurus trachurus	1965 1a		1950 1a										
HERRINGS, etc.													
Engraulis capensis			1964 1a										
Etrumeus micropus			1950 1a										
Sardinops ocellata	1965 1a		1950 1a										
MACKERELS, etc.													
Scomber japonicus			1954 1a										

1/ See Area A footnote 1/

Table 3. Sea Area M - Southeastern Pacific

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	AUSTRALIA	NEW ZEALAND
	FWD	MD
FLOUNDERS, etc.		
Rhombosolea spp.		1966 1
CODS, HAKES, etc.		
Sillaginodes punctatus	1964 1a	
REDFISHES, etc.		
Acanthopagrus butcheri	1947 1	
Cheilodactylus macropterus		1966 1
Chrysophrys auratus		1966 1
Trigla kumu		1966 1
CRUSTACEANS		
Jasus edwardsii		1950 1
Jasus lalandei	1963 1	
Jasus verreauxi		1960 1
SHARKS		
Callorhynchus millii		1966 1

Table 3. Sea Area N - Southeastern Pacific

Availability of samples of length and age distributions of commercial catches

(The table gives the year in which sampling started (or period covered), 1 indicates length measurements made, a age determinations obtained.)

Species	CHILE	PERU
	IFP	IMARPE
CODS, HAKES, etc.		
Merluccius gayi	1965 1	1965 1
Merluccius polylepsis	1965 1	
REDFISHES, etc.		
Pomadasyidae		1962 1a
Sciaena deliciosa		1962 1a
JACKS, MULLETS, etc.		
Atherinidae		1962 1a
HERRINGS, etc.		
Clupea bentincki	1966 1	
Engraulis ringens	1964 1	1961 1a
Ethmidium chilcae		1961 1a
Sardinops sagax	1966 1	1961 1a
CRUSTACEANS		
Cervimunida johni	1965 1	
Heterocarpus reedi	1965 1	
Pleuroncodes monodon	1965 1	

Table 4. Sea area A - Northwestern Atlantic
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
CANADA	FRB-N	Flounders		X		cm			1 cm
		Cod		X		cm			3 cm
		Haddock		X		cm			2 cm
		Redfish		X		cm			1 cm
		Herring	X					mm	0.5 cm nearest
		Tuna	X					mm	cm nearest
		Mackerel		X				mm	0.5 cm nearest
		Swordfish		X				mm	cm nearest
		Others		X		cm			2 cm
DENMARK (GREENLAND)	DGF	Cod	X				cm - 0.5 cm		3 cm
		Wolffish	X				cm - 0.5 cm		
		Capelin			X		cm - 0.5 cm		
		Other Salmonids		X			cm - 0.5 cm		
GERMANY, FED.REP.OF	IFS	Cod	X				cm		3 cm
		Redfish	X				cm		1 cm
ICELAND	MRI	Cod	X					cm	5 cm
		Redfish	X					cm	
JAPAN	FSFRL[1]	Tuna		X					
		Marlins		X					
POLAND	SFI	Flatfish	X				cm		2 cm
		Cod	X				cm		3 cm
		Haddock	X				cm		
		Redfish	X				cm		1 cm
		Herring	X				0.5 cm		
ROMANIA	IRPP	Haddock			X	cm			
		Herring			X	cm			
		Mackerel			X	cm			
U.S.S.R.	ATNIRO	Red Hake		X		cm			2 cm
		Silver Hake		X		cm			2 cm
		Herring	X			cm			1 cm
	PINRO	Cod	X			cm			3 cm
		Haddock	X			cm			1 cm
		Redfish	X			cm			2 cm

Table 4. Sea area A - (Cont'd)
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
U.K. (ENGLAND & WALES)	MAF-L	Demersal Fish	X				cm		3 cm
U.S.A.	ASRSC	Atlantic Salmon	X					inch	To the nearest inch for larger fish
	BCF-DC	Flounders		X		cm			cm
		Cod		X		cm			3 cm
		Haddock		X		cm			2 cm
		Red Hake		X		cm			cm
		Silver Hake		X		cm			cm
		Redfish		X		mm			cm
		Atlantic Herring	X				0.5 cm		cm
		Atlantic Lobster			X			mm	cm
	BCF-BH	Atlantic Herring	X				0.5 cm		cm and 0.5 cm
	MSSF	American Lobster			X	mm			

1/ Refers also to Areas B, E, F, K, L

Table 4. Sea area B - Northeastern Atlantic
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
BELGIUM	RPM	Cod			X		0.5 cm		
		Herring			X		0.5 cm		
		Sprat			X		0.5 cm		
DENMARK	DFH	Dab	X				cm		
		Plaice	X				cm		
		Cod	X				cm		
		Whiting	X				0.5 cm		
		Sandeel	X				0.5 cm		
		Herring	X				0.5 cm		
		Sea Trout	X				cm		5 cm
		Salmon	X				cm		5 cm
FINLAND	BFI	Baltic Herring	X					mm	0.5 cm
		Sprat	X					mm	0.5 cm
FRANCE	ISTPM-B	Cod	X				cm		3 cm
		Haddock	X				cm		
		Whiting	X				cm		1.2 cm
		Herring	X				0.5 cm		
		Mackerel	X				cm		
	ISTPM-N	Herring	X			0.5 cm			
	ISTPM-R	Cod	X			cm			
ICELAND	MRI	Cod		X				0.5 cm - cm	5 cm for big fish
		Haddock		X				0.5 cm - cm	5 cm for big fish
		Saithe		X				0.5 cm - cm	5 cm for big fish
		Catfish		X				0.5 cm - cm	5 cm for big fish
		Flatfish		X				0.5 cm - cm	5 cm for big fish
		Lump-Sucker		X				0.5 cm - cm	5 cm for big fish
		Redfish		X				0.5 cm - cm	5 cm for big fish
		Herring		X				0.5 cm - cm	5 cm for big fish
		Capelin		X				0.5 cm - cm	5 cm for big fish
IRELAND	IDAF	Plaice	X			cm			
		Whiting	X			cm			
		Herring	X			cm			0.5 cm (below)
		Crustacean	X				mm		
		Mollusc			X		mm		cm
JAPAN	FSFRL 1/								

Table 4. Sea area B - (Cont'd)
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
NETHERLANDS	RIVO	Plaice	X				cm		
		Sole	X				cm		
		Cod	X				cm		
		Haddock	X				cm		
		Whiting	X				cm		
		Herring	X				0.5 cm		cm
		Mackerel	X				0.5 cm		cm
		Brown Shrimp	X					mm	2.3 or 5 mm classes
NORWAY	FDHI	Saithe	X				cm - 0.5 cm		
		Herring	X				cm - 0.5 cm		
		Sprat	X			mm			
		Tuna		X			cm - 0.5 cm		
		Mackerel	X				cm - 0.5 cm		
		Capelin	X			mm			
POLAND	SFI	Flounder	X			cm			
		Plaice	X			cm			
		Cod	X			cm			
		Herring	X				0.5 cm		
		Sprat	X			cm			
SPAIN	IIP-C	Atun		X			0.5 cm		5 cm
		Bacareta		X			0.5 cm		3 cm
		Bonito		X			0.5 cm		2 cm
		Melva		X			0.5 cm		1 cm
SWEDEN	IMR	Cod	X				0.5 cm - cm		
		Whiting	X				0.5 cm - cm		
		Flatfishes	X				0.5 cm - cm		
		Herring	X				0.5 cm - cm		
		Sprat	X				mm		
U.K.	MAF	Crawfish			X		mm		5 mm
		Edible Crab			X	mm			10 mm
		Lobster			X		mm		5 mm
		Norway Lobster			X		mm		5 mm
	MAF-L	Demersal Fish	X				cm		5 cm
		Pelagic Fish	X				0.5 cm		5 cm

Table 4. Sea area B - (Cont'd)
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
U.K. (cont'd)	ML-A	Lemon Sole	X			cm 2/	cm 3/		cm or inches interval
		Plaice	X			cm 2/	cm 3/		cm or inches interval
		Cod	X			cm 2/	cm 3/		cm or inches interval
		Haddock	X			cm 2/	cm 3/		cm or inches interval
		Whiting	X			cm 2/	cm 3/		cm or inches interval
		Herring	X				mm		0.5 cm to the interval below
		Sprat	X				0.5 cm		

1/ See Area A footnote 1/
2/ Up to December 1966
3/ Since January 1967

Table 4. Sea area C - Mediterranean and Black Sea
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
BULGARIA	RIFO	Turbot		X				cm	
		Gobies		X				cm	
		Grey Mullets		X				cm	
		Scad		X				cm	
		Sprat		X				cm	
		Bonito		X				cm	
		Mackerel		X				cm	
CYPRUS	CYFD	Barbouni		X		0.5 cm			
		Lithrini		X		0.5 cm			
		Marida		X		0.5 cm			
		Strillia		X		0.5 cm			
FRANCE	ISTPM-S	Anchovy	X			0.5 cm - cm			
		Sardine	X			0.5 cm - cm			
		Tuna	X			0.5 cm - cm			
		Mackerel		X		0.5 cm - cm			
ISRAEL	SFRS	Sardine		X			0.5 cm		
		Tuna			X		0.5 cm		
ITALY	LBMP-F	Bothidae	X				cm - mm		cm
		Sole	X				cm - mm		cm
		Anchovy		X					cm
		Herring		X					cm
		Sardine		X					cm
SPAIN	IIP-B	Cod	X			cm			
		Greater Forkbeard	X			cm			
		Hake	X			cm			
		Pandoras	X			cm			
		Horse Mackerel	X			mm			
		Red Mullet	X			cm			
		Sardine	X			cm			
		Mackerel	X			cm			
		Shrimp	X			cm			
		Octopus	X			cm			
	IIP-GC	Sardine	X			0.5 cm			
TUNISIA	INSTOP	Hake	X			0.5 cm			
		Mullidae	X			0.5 cm			

Table 4. Sea area C - (Cont'd)
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
U.A.R.	IOF	Sole	X		X	0.5 cm			mm readings into cm; 5 cm groups for large fish
		Sciaenidae	X		X	0.5 cm			
		Sparidae	X		X	0.5 cm			
		Synodontidae	X		X	0.5 cm			
		Mullidae	X		X	0.5 cm			
		Jack	X		X	0.5 cm			
		Mullet	X		X	0.5 cm			
		Sardine	X		X	0.5 cm			
		Prawns	X		X	0.5 cm			
YUGOSLAVIA	IOF	Sardine	X					mm	0.5 cm to unit below
		Sprat	X					mm	0.5 cm to unit below

Table 4. **Sea area D - Northern Pacific**
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
CANADA	FRB-N	Flatfish	X			cm			
		Blackcod		X		cm			
		Pacific Cod	X			cm			3 cm
		Lingcod	X			cm			
		Rockfish		X		cm			
		Herring			X	mm 3/			3 mm
		Chinook		X		mm 3/			cm
		Chum		X 1/	X 2/	mm 3/			cm
		Coho		X		mm 3/			cm
		Pink		X 1/	X 2/	mm 3/			cm
		Sockeye		X 1/	X 2/	mm 3/			cm
		Dog Fish	X			cm			
JAPAN	FSFRL	Yellowfin Sole			X			cm - 2 cm 4/	
		Halibut			X			5 cm 4/	
		Black Cod			X			2 cm 4/	
		P. Cod			X			2 cm 4/	
		Pollack			X			cm - 2 cm 4/	
		P. Ocean Perch			X			cm - 2 cm 4/	
		P. Herring		X				cm 4/	
		Tunas		X				cm - 2 cm 4/	
		Marlins		X				5 cm 4/	
		King Crab			X	mm			5 mm
		Shrimp			X			0.5 cm 4/	
		Salmon		X		cm		cm - 2 cm 4/	
	TRFRL 5/	Pacific Saury			X		cm		
U.S.A.	ADFG	Dungeness Crab			X	0.5 cm			
		King Crab			X	0.5 cm			
		Salmon		X		0.5 cm			
	BCF-S	P. Hake		X		cm			
		P. Ocean Perch		X		cm			
		Rockfishes		X		cm			
	FRI-UW	Lingcod	X			cm			
		Pleuronectidae	X			cm			
		Cod	X			cm			
		P. Ocean Perch		X		cm			
		P. Hake		X		cm			
		Sablefish		X		cm			
	OFC	Salmon		X		cm, inch			

Table 4. Sea area D - Northern Pacific
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
INTERNATIONAL	IPHC 6/	Halibut		X		cm			5 cm

1/ Up to 1957
2/ Since 1958
3/ Since 1958, previously: 0.5 inch (before 1948), cm (from 1948 to 1957)
4/ Rounded to unit above
5/ Refers also to I area
6/ Refers also to J area

Table 4. Sea area E - Western-Central Atlantic
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
CUBA	CIP	Bigeye Tuna		X		cm			10 cm
		Bluefin Tuna		X		cm			10 cm
		Yellowfin Tuna		X		cm			10 cm
		Billfishes		X		cm			10 cm
		Shrimp		X		mm			5 mm
JAPAN	FSFRL 1/								
U.S.A.	BCF-DC	Menhadens		X				mm	cm ~ 5-10 mm
		Shrimp		X				mm	
	BCF-B	Menhadens		X				mm	cm
	BCF-TA	Tuna		X	X			mm - cm	
	BSFW-SH	Bluefin	X					mm	cm
	FDMR	Clupeids			X	mm - 0.5 cm			10,25 and 50 mm
		Mackerels		X	X	mm - 0.5 cm			10,25 and 50 mm
	VDMS	Striped Bass		X			mm		
		Alewife		X			mm		
		Blue Back		X			mm		
		Shad		X			mm		
VENEZUELA	FRDP	Anchovy			X			mm	
		Sardine			X			mm	0.5 cm
		Bluefin Tuna			X			0.5 cm	

1/ See Area A footnote 1/

Table 4. Sea area F - Eastern-Central Atlantic
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
CONGO (BRAZZA.)	ORSTOM-PN	Tonguefish	X				cm		
		Croakers	X				cm		
		Sea Bream	X				cm		
		Sardinella		X			cm		
		Tuna		X			cm		
GHANA	MAFRU	Horse Mackerel	X	X					5 cm
		Sardinella		X			0.5 cm		
IVORY COAST	ORSTOM-A	Croakers	X				cm		
		Grunters	X				cm		
		Sea Breams	X				cm		
		Sardinella		X			0.5 cm		
		Tuna		X			cm		
		Prawn	X				0.5 cm		
JAPAN	FSFRL[1/]								
NIGERIA	FFS	Big Eye	X			cm			
		Croakers	X			cm			3 cm
POLAND	SFI	Hake	X						
		Carangidae	X						2 cm
		Serranidae	X						2 cm
		Sparidae	X						2 cm
		Zeidae	X			cm			cm
		Bluefish	X						
		Horse Mackerel	X						
		Sardinella	X				0.5 cm		cm
		Mackerel	X			cm			cm
SIERRA LEONE	SLDF	Sardinella		X			0.5 cm		

1/ See Area A footnote 1/

Table 4. Sea area C - Western Indian Ocean
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
CEYLON	CEDF	Rock Fish	X						
		Mackerel	X				0.5 cm - cm		0.5 cm - 5 cm
		Seer	X						
	CEFD	Sea Bream	X			0.5 cm			
INDIA	CMFRI-M	Sardinella	X			mm			5 mm - 10 mm
		Mackerel	X			mm			5 mm - 10 mm
		Prawn	X			mm			5 mm - 10 mm
IRAQ	IFD	Soleidae	X			cm			3 cm - 5 cm
		Stromateidae	X			cm			3 cm - 5 cm
		Wolf Herring	X			cm			3 cm - 5 cm
JAPAN	FSFRL 1/	Tuna		X				1 cm - 2 cm 2/	
		Marlin		X				5 cm 2/	
INTER-NATIONAL	FAO	Marlin		X			cm		
		Sailfish		X			cm		

1/ Refers also to Area H
2/ Rounded to unit above

Table 4. Sea area H - Eastern Indian Ocean
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
INDIA	CMFRI-T	Sardinella	X		X			mm	cm
	MBRS-AU	Clupeidae	X	X	X			cm	
JAPAN	FSFRL 1/								

1/ See Area G footnote 1/

Table 4. Sea area I - Western-Central Pacific
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
CHINA, REP. OF	TFRI	Tuna	X	X				cm	
		Marlin	X	X				mm	
	TIFB	Croaker			X			cm	
		Gray Mullet			X			mm	
GUAM	GFWD	Carangidae	X	X		mm			
		Charancinidae	X	X		mm			
		Lutianidae	X	X		mm			
		Serranidae	X	X		mm			
		Bonito	X	X		mm			
		Tuna	X	X		mm			
HONG KONG	HFRS	Big Eye	X	X			0.5 cm - cm		
		Conger Pike	X				0.5 cm		
		Golden Thread		X			0.5 cm		
		Red Goatfish	X	X			0.5 cm - cm		
		Hairtails			X		0.5 cm - cm		
JAPAN	FRO	Conger Eel			X	mm			cm
		Black Croaker	X			mm			cm
		White Croaker	X			mm			cm
		Yellow Croaker	X			mm			cm
		Lizard Fish		X		mm			cm
		Red Sea Bream		X		mm			cm
		Yellow Sea Bream		X		mm			cm
		Hair Tail			X	mm			cm
	FSFRL	Tuna		X				cm - 2 cm[1]	
		Mackerels		X				5 cm[1]	
	SRFRL	Jack Mackerel		X				mm	0.5 cm
		Scads		X				mm	0.5 cm
		Anchovy			X			mm	0.5 cm
		Sardine			X			mm	0.5 cm
		Pacific Mackerel		X				mm	0.5 cm
		Spotted Mackerel		X				mm	0.5 cm
	TRFRL[2]								

Table 4. Sea area I - (Cont'd)
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
PHILIPPINES	PFC	Croaker	X				mm - 0.5 cm		0.5 cm
		Lizard Fish	X				mm - 0.5 cm		0.5 cm
		Slipmouth	X				mm - 0.5 cm		0.5 cm
		Snappers	X				mm - 0.5 cm		0.5 cm
		Roundscad	X				mm - 0.5 cm		0.5 cm
		Anchovy	X				mm - 0.5 cm		0.5 cm
		Sardinella	X				mm - 0.5 cm		0.5 cm
		Chub Mackerel	X				mm - 0.5 cm		0.5 cm

1/ Rounded to unit above
2/ See Area D footnote 5/

Table 4. Sea area J - Eastern-Central Pacific
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
GUATEMALA	DPM	Brown Shrimp			X				
		Red Shrimp			X				
		White Shrimp			X				
JAPAN	FSFRL	Tuna		X				cm - 2 cm 1/	
		Marlin		X				5 cm 1/	
PANAMA	DDP	Anchovy			X	mm 2/			
		Thread Herring			X	mm 2/			
U.S.A.	CFG	Dover Sole	X				2 cm		cm
		English Sole	X				2 cm		cm
		Petrale Sole	X				2 cm		cm
		Rockfish	X					mm	
		Sable Fish	X				2 cm		cm
		Jack Mackerel		X		2.5 mm			
		Anchovy			X	mm			
		Albacore		X		cm			
		Bluefin Tuna		X		mm			
		Pacific Bonito		X				mm	
		Pacific Mackerel		X		2.5 mm			
		Salmon		X		cm			
		Market Crab			X			mm	cm
	HFG	Bigeyed Scad		X				mm	5 mm
		Pacific Threadfin		X				mm	5 mm
		Kona Crab			X			mm	5 mm
		American Oyster			X			mm	5 mm
INTER-NATIONAL	CFG/INIBP-G	Jack Mackerel		X		0.5 cm			
		Anchovy		X	X	mm			
		Sardine		X	X	mm			
		Pacific Mackerel		X		0.5 cm			
	IATTC	Bigeye		X		mm			2 cm
		Skipjack		X		mm			cm
		Yellowfin Tuna		X		mm			2 cm

1/ Rounded to unit above
2/ From March 1963 to November 1967: 5 mm

Table 4. Sea area K - Southwestern Atlantic
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
ARGENTINA	DGP	Hake	X			mm			cm
		Hawkfish	X			mm			cm
		Anchovy	X			mm			0.5 cm
		Bonito	X			mm			cm
		Mackerel	X			mm			cm
BRAZIL	CFO-URS	Hake	X					2 mm	cm - 5 cm
		Black Drum	X					2 mm	cm - 5 cm
		Croaker	X					2 mm	cm - 5 cm
		Weakfish	X					2 mm	cm - 5 cm
		Mullet	X					2 mm	cm - 5 cm
		Menhadens	X					2 mm	cm - 5 cm
		Shrimp	X				0.5 cm		0.5 cm
	EBM-UC	Red Snapper	X					mm	cm
		Weakfish		X				mm	cm
		Bumper		X				mm	cm
		Atlantic Thread Herring		X				mm	0.5 cm
		Tarpon		X				mm	5 cm
		King Mackerel		X				mm	5 cm
		Spanish Mackerel		X				mm	5 cm
		Coral Crab	X					mm	cm
		Spiny Lobsters	X					mm	cm
		Green Turtle			X			mm	5 cm
	IO-SP	Croaker	X				0.5 cm		cm
		Weakfish	X			0.5 cm			cm
	SUDENE	Red Snapper	X			0.5 cm			
		Flying Fish	X			0.5 cm			
		Mussels	X			mm			
		Spiny Lobster			X	mm			
JAPAN	FSFRL[1/]								
URUGUAY	SOYP	Hake	X				0.5 cm		2 cm
		Croaker	X				0.5 cm		2 cm

1/ See Area A footnote 1/

Table 4. Sea area L - Southeastern Atlantic
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
BULGARIA	RIFO	Cape Hake			X			cm	
		S.American Hake						cm	
		Dog's Teeth		X				cm	
		Morwong	X					cm	
		Scad		X				cm	
		S.African Pilchard		X				cm	
JAPAN	FSFRL[1/]								
S. AFRICA, REP. OF	DSF	Cape Hake	X			cm			5 cm
		Geel Bek				mm			5 cm
		Hottentot				mm			5 cm
		Silver Fish				mm			5 cm
		Horse Mackerel	X		X	mm			0.5 cm
		Anchovy	X		X	mm			0.5 cm
		Pilchard	X		X	mm			0.5 cm
		Round Herring	X		X	mm			0.5 cm
		Snoek				mm			5 cm
		Cape Rock Lobster			X	cm			cm
		E.Coast Rock Lobster			X	cm			cm
		Abalone			X	cm			cm

1/ See Area A footnote 1/

Table 4. Sea area M - Southwestern Pacific
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
AUSTRALIA	VDFW	King George Whiting		X		cm			
		Black Bream		X		cm			
		Snapper		X		cm			
		Tiger Flathead		X		cm			
		Snoek		X		cm			
		Southern Crayfish			X	mm			
		Scallop			X	mm			
		Australian Salmon		X		cm			
		Gummy Shark		X		cm			
		School Shark		X		cm			
NEW ZEALAND	MD	Flounder		X			cm		
		Gurnard		X			cm		
		Snapper		X			cm		
		Tarakihi		X			cm		
		Packhorse Crayfish			X		cm, inch		
		Spiny Crayfish			X		cm, inch		
		Elephant Fish		X			cm		

Table 4. Sea area N - Southeastern Pacific
Methods used in recording and grouping length measurements of fish

Country	Institute	Fish species	Length dimension			Unit rounded to:			Grouping of unit
			Total	Fork	Other	Nearest	Unit below	Not reported	
CHILE	IFP	Hake	X			cm			2 cm
		Horse Mackerel	X					0.5 cm	0.5 cm
		Anchovy	X					0.5 cm	0.5 cm
		Herring	X					0.5 cm	0.5 cm
		Pilchard	X					0.5 cm	0.5 cm
		Bonito	X					0.5 cm	0.5 cm
		Lobster			X		0.5 mm		mm
		Shrimp			X		0.5 mm		mm
PERU	IMARPE	Hake	X			cm			
		Croaker	X			cm			
		Drum	X			0.5 cm			cm
		Grunt	X			cm			
		Horse Mackerel	X			cm			
		Silverside	X			cm			
		Mullet	X			0.5 cm			cm
		Anchovy	X			cm			
		Menhaden	X			cm			
		Pilchard	X			cm			
		Bonito		X		0.5 cm			cm
		Mackerel		X		0.5 cm			cm